

PET for Brain Metabolism

CPT: 78608

1 Dementia to differentiate FrontoTemporal Dementia (FTD) from Alzheimer's Disease (AD) [all]

1.1 Signs and Symptoms

1.1.1 Apraxia (impaired ability to carry out motor activities despite intact motor function)

1.1.2 Confusion

1.1.3 Disorientation

1.1.4 Language difficulties

1.1.5 Memory loss

1.1.6 Progressive cognitive decline

1.1.7 Social disinhibition

1.2 Medical conditions to explain dementia have been eliminated by normal or nondiagnostic

1.2.1 Thyroid-function tests

1.2.2 Vitamin B12 level

1.2.3 Blood urea nitrogen (BUN)

1.2.4 Serum electrolyte

1.2.5 Blood glucose levels, and

1.2.6 Liver-function

1.3 Nondiagnostic SPECT, MRI or CT

1.4 Planned medical intervention if AD is diagnosed

2 Seizure [All of the following]

2.1. Seizures not responsive to adequate dosage of medications

2.2. Surgery is planned

2.3. MRI does not define a "seizure focus"

3 Primary or metastatic brain tumor [One of the following]

3.1. Pre-operative study tumor resection or radiosurgery with margins not defined on MRI or CT

3.2. Post treatment determination of viable tumor versus radiation necrosis

- 4 Movement disorder [One of the following]
- 5 Suspected Huntington's chorea with a non-diagnostic MRI and genetic testing is inconclusive [One of the following]
 - 5.1. Irregular lurching gait
 - 5.2. Speech disturbance
 - 5.3. Positive family history
 - 5.4. Progressive ataxia of undetermined etiology

References

1. ACR Appropriateness Criteria® Seizures and Epilepsy American College of Radiology Last review date: 2014
2. American College of Radiology Appropriateness Criteria – Dementia and Movement Disorders. Last review date: 2014
3. Procedure Guideline for FDG-PET Brain Imaging v1.0 1 Society of Nuclear Medicine Procedure Guideline for FDG PET Brain Imaging
4. National Coverage Determination (NCD) for FDG PET for Dementia and Neurodegenerative Diseases (220.6.13) Accessed 3/17/11 at <http://www.cms.hhs.gov/medicare-coverage-database/details/ncd-details.aspx?NCDId=288&ncdver=3&bc=AAAgAAAAAA&cd-details.aspx?NCDId=288&ncdver=3&bc=AAAgAAAAAA&>

I. Primary or metastatic brain tumor [One of the following]

- A. Pre-operative study tumor resection or radiosurgery with margins not defined on MRI or CT
- B. Post treatment determination of viable tumor versus radiation necrosis

II. Movement disorder [One of the following]

- A. Suspected Huntington's chorea with a non-diagnostic MRI and genetic testing is inconclusive [One of the following]
 1. Irregular lurching gait
 2. Speech disturbance
 3. Positive family history
- B. Progressive ataxia of undetermined etiology

III. Seizure [All of the following]

- Seizures not responsive to adequate dosage of medications
- Surgery is planned
- MRI does not define a "seizure focus"

References

1. ACR Appropriateness Criteria® Seizures and Epilepsy American College of Radiology Last review date: 2014
2. American College of Radiology Appropriateness Criteria – Dementia and Movement Disorders. Last review date: 2014
3. Procedure Guideline for FDG-PET Brain Imaging v1.0 1 Society of Nuclear Medicine Procedure Guideline for FDG PET Brain Imaging